UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/841,240	04/24/2001	Scott Lee Wellington	5659-03500/EBM	4723

7590 06/02/2005

DEL CHRISTENSEN
SHELL OIL COMPANY
P.O. BOX 2463
HOUSTON, TX 77252-2463

EXAMINER	
JOHNSON, JERRY D	

ART UNIT	PAPER NUMBER
1764	

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/841,240	WELLINGTON ET AL.	
	Examiner	Art Unit	
	Jerry D. Johnson	1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 March 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *4369-4402* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *4369-4402* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11 March 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 3/30/05
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 4369-4402 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Lindquist.

Lindquist, U.S. Patent 3,892,270, teaches recovering a gaseous product gas containing hydrocarbon values from a hydrocarbon-containing formation (column 1, lines 6-18). Hydrocarbons can be recovered from heavy-oil fields by partial oxidation and thermal cracking of the hydrocarbons in situ (column 3, lines 6-8). The product gas is composed of various constituents including carbon monoxide, hydrogen, methane and C_1 to C_{10} hydrocarbons, as well as carbon dioxide (column 3, lines 46-49). The product gas constituents may be optimized by controlling the ratio of oxidizing gas to steam (column 4, lines 3-4). The product reasonably appears to be either the same as or an obvious variation of the instantly claimed product because the product of Lindquist is also produced from a coal hydrocarbon formation and in a similar way as compared to the claimed product.

In the event any difference can be shown for the product of claims 4369-4402, as opposed to the product taught by Lindquist, such differences would have been obvious to one of ordinary skill in the art as a routine modification of the product in the absence of a showing of unexpected results.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 4369-4402 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

To the extent it could be argued that the claimed composition is novel or unobvious, the claimed subject matter has not be described in the specification in such a way as to enable one skilled in the art to make and/or use the invention, i.e., hydrocarbon formations differ in chemical composition and applicants have not identified the chemical characteristics of the hydrocarbon formation from which the claimed product is derived.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 4369-4402 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 4184-4224 and 4242-4280 of copending Application No. 09/841,127. Although the conflicting claims are not identical, they are not patentably distinct from each other because each set of claims appears to be drawn to products that have the same components in overlapping amounts. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the claims in 09/841,127 to obtain the product of the present application by choosing component amounts with the claimed ranges.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 4369-4402 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 4429-4448 and 5396-5405 of copending Application No. 09/841,636. Although the conflicting claims are not identical, they are not patentably distinct from each other because each set of claims appears to be drawn to products that have the same components in overlapping amounts. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the claims in 09/841,636 to obtain the product of the present application by choosing component amounts within the claimed ranges.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 4369-4402 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 4188-4284 of copending Application No. 09/841,310. Although the conflicting claims are not identical, they are not patentably distinct from each other because each set of claims appears to be drawn to products that have the same components in overlapping amounts. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the claims in 09/841,310 to obtain the product of the present application by choosing component amounts within the claimed ranges.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Applicant's arguments filed March 30, 2005 have been fully considered but they are not persuasive.

Applicants argue

> [r]egarding the demonstration described beginning in column 5, Lindquist states: "Condensate sample yield analysis is shown in Table II." (Lindquist, col. 6, lines 60-61) The "Detailed Composition Summary" in Table II indicates that 0.25 volume percent of the condensate sample is made up of aromatics. Thus, Lindquist does not appear to teach or suggest an aromatics content that approaches 20% by weight of the condensable hydrocarbons. (Remarks, page 11).

Applicants further argue

> [r]egarding the demonstration described beginning in column 5, Lindquist states: "Periodic samples were taken of the gas and liquid products for later analysis.... A typical gas composition consisted of 7 percent methane, 1.7 percent ethane, 12 percent carbon monoxide, 2 percent hydrogen, with the balance carbon dioxide." (Lindquist, col. 6, lines 48-60) Thus, Lindquist does not appear to teach or suggest a hydrogen content that approaches 15% by weight of the non-condensable component. Furthermore, Lindquist states: "It is desirable to maximize the Btu value of the product gas. This is done by optimizing

> production of methane relative to carbon monoxide and hydrogen. In maximizing production of methane, the reactions are favored by lower temperatures and higher space rates (short residence time of the product gas in the high – temperature zone)." (Lindquist, col. 3, lines 52-58) Thus, Lindquist does not appear to teach or suggest increasing a relative amount of H_2 in the product gas. (Remarks, page 11).

Applicants' argument lacks merit.

Lindquist is not limited to the specific examples of the specification. As noted above, Lindquist teaches recovering a gaseous product gas containing hydrocarbon values from a hydrocarbon-containing formation (column 1, lines 6-18). Hydrocarbons can be recovered from heavy-oil fields by partial oxidation and thermal cracking of the hydrocarbons in situ (column 3, lines 6-8). The product gas is composed of various constituents including carbon monoxide, hydrogen, methane and C_1 to C_{10} hydrocarbons, as well as carbon dioxide (column 3, lines 46-49). The product gas constituents may be optimized by controlling the ratio of oxidizing gas to steam (column 4, lines 3-4). The product reasonably appears to be either the same as or an obvious variation of the instantly claimed product because the product of Lindquist is also produced from a coal hydrocarbon formation and in a similar way as compared to the claimed product.

Applicants argue "that suitable hydrocarbon formations are described at least from line 29 of page 51 through line 13 of page 56 of the Specification." (Remarks, page 12). Applicants' argument lacks merit.

Coal formations differ in chemical composition and it would be expected that any fluid obtained from a coal formation would depend on that chemical composition. Thus, to the extent it can be argued that the claimed compositions are novel or unobvious, the claimed subject mater has not been described in the specification in such a way as to enable one skilled in the art to

make and/or use the invention, i.e., applicants have not identified the chemical characteristics of the coal formation from which the claimed product is derived. As to pages 51 through 56 of the specification, those pages contain a general description on which a coal formation may be selected (e.g., "richness, thickness and depth"), but fail to teach or disclose the chemical composition of the coal formation required to produce the claimed compositions.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerry D. Johnson whose telephone number is (571) 272-1448. The examiner can normally be reached on 6:00-3:30, M-F, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jerry D. Johnson
Primary Examiner
Art Unit 1764

jdj